

SOCIETY MEETING OF OCTOBER 22, 1997

Dr. Susan P. Whitney
University of Delaware, Cooperative Extension

SUBTERRANEAN TERMITE COMMUNITY ECOLOGY

Dr. Whitney began by explaining that her research is an effort to answer basic questions about termite ecology, sparked by the need to find new controls. Chlordane, the old standby, has been unavailable since 1988. Subterranean termites are the number two household insect in terms of damage caused.

After providing a brief account of the natural history of termites, Dr. Whitney reported on studies of three species of subterranean termites in two sites in Delaware. *Reticulitermes flavipes*, the eastern subterranean termite, is found in wooded areas in northern Delaware. *R. virginicus* and *R. hageni* are found in dry habitats in southern Delaware. During the summers (May-September) of 95 and 96, field sites were monitored for termite activity with pine stakes buried approximately 20 cm in the ground. Stakes that showed feeding were replaced with "bucket traps" — plastic buckets with the bottom cut off. Into each bucket was placed a wood "sandwich" — six pieces of pine arranged to allow gaps for workers to build mud tubes. Termites were removed from an initial bucket at the start of the field season. Individual workers were marked by allowing them to feed on filter paper saturated with Nile blue A dye. After three days of feeding, marked workers were returned to their bucket. After one week all wood "sandwiches" in the field site were examined for termite presence. The data from repeated marking and recapture were analyzed and average number of workers in colonies of each species calculated. Foraging distances were determined to be as much as thirty feet. Comparisons of the two sites, the experimental farm at University of Delaware in Newark and the field station at Lewes, suggested that colony size and relations among the three species are different in the dry pinewoods at Lewes.

Dr. Whitney described her plans to confirm these findings at other sites and to try reducing colonies with toxic baits to test population recovery.

In entomological notes, Susan Whitney reported finding mole crickets in Delaware; Jon Gelhaus noted AES treasurer Howard Boyd's new book on the New Jersey Pine Barrens; and Roger Fuester reported on the low levels of gypsy moth in Delaware this year — no acreage over 30% defoliated.

W. J. Cromartie
Corresponding Secretary

NOTE RE PRIORITY OF NEW SPECIES DESCRIBED IN JANUARY-FEBRUARY 1998 ISSUE OF ENTOMOLOGICAL NEWS

The January-February 1998 issue, Vol. 109, No. 1, of *Entomological News* was mailed on December 1, 1997. Due to this early mailing date, and for purposes of priority, any new species described in that issue must be cited with a 1997 date, even though it appeared in a 1998 issue.

H.P.B., ed.